

REMARKS

The Invention

The present invention is based on Applicants' discovery of a highly antigenic sequence within the major outer membrane protein (MOMP) that is common to all Chlamydial species. Accordingly, the invention is directed to substantially pure immunogenic polypeptides that consist essentially of SEQ ID NO: 81 or a subsequence of SEQ ID NO: 81 containing amino acids 2 to 13 of SEQ ID NO: 101.

The Office Action

Claims 1-5 are pending. Claims 3-5 are withdrawn from consideration as being directed to non-elected subject matter. Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b). This rejection is addressed below.

As suggested by the Office, Applicants have amended the specification to update the priority information and correct typographical errors.

Rejections under 35 U.S.C. § 102(b)

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Storey et al. (J. Gen. Microbiol. 139: 2621-2626, 1993; hereinafter "Storey") or Girjes et al. (Gene 138:139-142, 1993; hereinafter "Girjes"). In applying these rejections, the Office states that Storey and Girjes teach the claimed polypeptides. Applicants

respectfully traverse this rejection.

Turning to the first cited reference, Storey describes a Chlamydial species isolated from the respiratory tract of a horse and provides the cDNA sequence of the major outermembrane protein (MOMP). Based on this sequence, Storey *predicts* the amino acid sequence of MOMP, but never actually purifies *any* polypeptide, let alone the claimed polypeptide.

Similarly, the Girjes disclosure provides the predicted amino acid sequence of a MOMP polypeptide isolated from *Chlamydia psittaci*. Girjes, like Storey, fails to purify the polypeptide and similarly cannot anticipate the claims.

Moreover, Applicants note that neither reference discloses the existence of an immunogenic polypeptide consisting essentially of the claimed sequences. Rather, both Storey and Girjes provide only a deduced amino acid sequence of a naturally occurring, *full-length* MOMP polypeptide. While encompassing the claimed sequences, the polypeptides predicted by Storey and Girjes include an additional 295 amino acids and consequently, these references do not describe a polypeptide that *consists essentially* of the sequences of SEQ ID NO: 81 or a subsequence of SEQ ID NO: 81 containing amino acids 2 to 13 of SEQ ID NO: 101. In addressing the immunogenicity of Chlamydial species, Storey speculates that variable domain IV “is the proposed site of species and subspecies antigenic determinants” (see lines 11-14, in second column, page 2623) while Girjes states that “Three of these [variable domains] are dominant immunogenic

determinants and correspond to the major neutralizing and serotyping sites of MOMP.”

These regions highlighted by the authors, however, do not contain the claimed sequences.

The § 102(b) rejections in this case may be withdrawn.

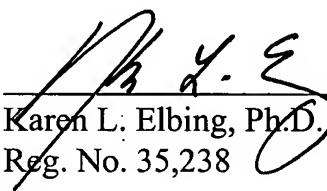
CONCLUSION

Applicants submit that the claims are now in condition for allowance, and such action is respectfully requested.

Enclosed is a Petition to extend the period for replying to the Office action for two months, to and including June 28, 2004 and a check in payment of the required extension fee. If there are any charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Date: 28 June 2004



Karen L. Elbing, Ph.D.
Reg. No. 35,238

Clark & Elbing LLP
101 Federal Street
Boston, MA 02110
Telephone: 617-428-0200
Facsimile: 617-428-7045

50321.003002 Reply to Office Action mailed 01.28.04